

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION TO DETERMINE COMPLIANCE	)	
TO 807 KAR 5:022 BY KENTUCKY OHIO GAS	)	CASE NO.
COMPANY REGARDING CONSTRUCTION OF A GAS	)	95-023
TRANSMISSION PIPELINE	)	

O R D E R

On February 28, 1995 and March 13, 1995, the Commission received the attached reports regarding ongoing testing of welds on the Kentucky Ohio Gas Company pipeline being constructed on Meadow Lane and Meade Springer Road in Boyd County, Kentucky. The Commission on its own motion HEREBY ORDERS that the reports be made a part of the record in this proceeding.

IT IS FURTHER ORDERED that any party to this proceeding may file comments regarding the contents of the reports within 15 days of the date of this Order.

Done at Frankfort, Kentucky, this 24th day of March, 1995.

PUBLIC SERVICE COMMISSION

  
For the Commission

ATTEST:

  
Executive Director



# Energy Management & Services Company

Technical Expertise Serving The Oil & Gas Industry

ELL  
LLA

February 27, 1995

Mr. Scott Smith, P.E.  
Kentucky Public Service Commission  
P.O. Box 615  
730 Schenkel Lane  
Frankfort, KY 40601

**RECEIVED**

FEB 28 1995

DIVISION OF UTILITY  
ENGINEERING & SERVICES

Re: Kentucky-Ohio Gas Acquisition  
Completion of Excavation  
For X-Ray Purposes

Dear Scott:

We are glad to report the completion of the excavation of previously backfilled pipe to expose welds for x-raying purposes along a section of Meadow Lane (2,112') and Meade Springer (2,856') Roads in Boyd County, Kentucky where an insufficient number of the welds were nondestructively tested during actual construction. This deficiency of x-rays for this section of pipeline was the topic of KPSC Order dated September 27, 1994.

A total of one hundred twenty five (125) welds were x-rayed. Seven of the welds were rejected through the x-ray process. One of these welds was repaired successfully. The remaining six were cut out. A copy of the x-ray reports are enclosed for your files.

Six of these rejected welds were on fittings, one was on straight pipe. We have reviewed the earlier construction with inspectors and technicians and learned that there are four fittings within those pipe sections that were not x-rayed 100%. We have x-rayed the two welds on one of the fittings and found one weld unacceptable. It has been repaired. The welds on the remaining fittings will be uncovered and x-rayed as another step to insure we are building a pipeline of high integrity.

As we reported earlier, very little damage was done to the coating during excavation. All damaged coating was repaired before backfilling.

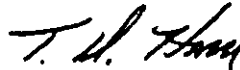
Mr. Scott Smith  
February 27, 1995  
Page Two

In summary, according to available records, all the welds along the section of pipeline in question have now been nondestructively tested. All the welds rejected by x-ray have been repaired or cut out and replaced with welds that passed x-ray.

Please call if you have any questions pertaining to any portion of the project.

Sincerely,

ENERGY MANAGEMENT & SERVICES CO.



T.D. HONN, P.E., L.S.  
PRESIDENT

cc: Mr. Tim Sutherland	w/o enc
Mr. Jeff Brown	w/o enc
Mr. Jack Hughes	w/o enc
Mr. Glenn Templeton	w/o enc

KOGA/105



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 582-8835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-1	✓		Hy. OH						188 wall
2 DO-2	✓								med Spring E-B
3 DO-3	✓								44' From Road Cross
4 DO-4	✓								
5 DO-5	✓								VAN BUBBER
6 DO-6	✓								
7 DO-7	✓								
8 DO-8	✓								
9									
10									
11									
12									
13									
14									
15									
16									
17									
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23									
24									
25									

RADIOGRAPHER: *LARRY Chapman* HELPER:

INSPECTOR: *Franklin V. Jr.*

TOTAL WELDS *8* TOTAL HOURS

MILES: START END *100 miles (RT)*

CONTRACTOR: LOCATION: *Hy med Spring*

CODE: *RPI 1104*

DATE *1-13-95* PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 582-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
100-9	✓	✓	Ky-04	B+L					.188 wall
200-10	✓	✓							
300-11	✓	✓							
400-12	✓	✓							NEED STENCILS
500-13	✓	✓							
6									
7									
8									
9									
10									
11									
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25									

RADIOGRAPHER: *James Chopra* HELPER: *T. Davis*

INSPECTOR: *James Chopra*

TOTAL WELDS: *5* TOTAL HOURS: *4*

MILES: START END *100 miles rt*

CONTRACTOR: *B+L* LOCATION: *Ky*

CODE: *API 1104*

DATE *1-14-94* PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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P. O. BOX 220  
HURRICANE, WV 25528

PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-14	✓		KY-04	B+L			3"		188 wall
2 DO-15	✓								
3 DO-16	✓								NEED SPRING FR
4 DO-17	✓								
5 DO-18	✓								
6 DO-19	✓								
7 DO-20	✓								
8 DO-21	✓								
9 DO-22	✓								
10 DO-23	✓								
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: *Larry Chapman* HELPER:

INSPECTOR: *Frank R. Vign...*

TOTAL WELDS 10 TOTAL HOURS

MILES: START END 100 miles E

CONTRACTOR: B+L LOCATION: *Catholicsburg*

CODE: *API 1104*

DATE 1-17-94 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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P. O. BOX 220

HURRICANE, WV 25528

PHONE: (304) 582-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL SIZE	WELD CLASS	REMARKS
1 20-24	✓	✓	HY-04	B+L	—	5"		MEADE SPRINGER
2 00-25	✓	✓						
3 00-26	✓	✓						188 WALL
4 00-27	✓	✓						
5 00-28	✓	✓						
6 00-29	✓	✓						
7 00-30	✓	✓						
8 00-31	✓	✓						
9 00-32	✓	✓						
10 00-33	✓	✓	↓	↓		↓		
11								
12								
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18								
19								
20								
21								
22								
23								
24								
25								

RADIOGRAPHER: *Sandy Chapman* HELPER:

INSPECTOR: *Franklin Dyer*

TOTAL WELDS *10* TOTAL HOURS *8*

MILES: START END *100 miles Rd.*

CONTRACTOR: *BTL* LOCATION: *Cathlamet Ky*

CODE: *APR 1104*

DATE *1-18-95* PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 562-8835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1. DO-34	✓		KY-04	BLL					
2. DO-35	✓								
3. DO-36	✓								
4. DO-37	✓								
5. DO-38	✓								
6									
7									
8									
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24									
25									

RADIOGRAPHER: *Larry Chapman* HELPER:

INSPECTOR: *James M. Ugg*

TOTAL WELDS: *5* TOTAL HOURS: *8*

MILES: START END *100 miles RT*

CONTRACTOR: *BLL* LOCATION: *Cathlamet Ky*

CODE: *API 1101*

DATE *1-19-95* PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
B.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT





# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-0835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1			NY-01	B&L			8"		
2									
3									
4									
5									
6									
7									
8									
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23									
24									
25									

RADIOGRAPHER: LARRY CHAPMAN HELPER:

INSPECTOR: Stephen King

TOTAL WELDS 0 TOTAL HOURS 5 Stand by

MILES: START END 100 miles Rt

CONTRACTOR: B&L LOCATION: Catlettsburg Ky

CODE: APJ 1104

DATE 1-20-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-39	✓	✓	RycoH	B+L	LP		8"	FIXED MEADE SPRINGER +	
2 DO-40	✓	✓						FROM ROAD CROSSING TO	
3 DO-41	✓	✓	Cut Out		LP			FIXED MEADOW LANE	
4 DO-42	✓	✓							
5 DO-43	✓	✓							
6 DO-44	✓	✓							
7 DO-45	✓	✓							
8 DO-46	✓	✓							
9									
10									
11									
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16									
17									
18									
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22									
23									
24									
25									

RADIOGRAPHER: LARRY Chapman HELPER:

INSPECTOR: John R. Vign

TOTAL WELDS 8 TOTAL HOURS 8

MILES: START END 100 miles Rt.

CONTRACTOR: B+L LOCATION: Callisto Bay Ky.

CODE: API 1104

DATE 1-23-94 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DC-47	✓		By-oh	B+L			8"		188
2 DC-48	✓								
3 DC-49	✓								
4 DC-50	✓								
5 DC-51	✓								
6 DC-52	✓								
7 DC-53	✓								
8 DC-54	✓								
9 DC-39 R	✓								
10									
11									
12									
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23									
24									
25									

RADIOGRAPHER: *Larry Chapp* HELPER:

INSPECTOR: *John L. King*

TOTAL WELDS 9 TOTAL HOURS 8

MILES: START END — 100 miles RT

CONTRACTOR: *B+L* LOCATION: *Cannon Lough*

CODE: *1104*

DATE 1-25-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-55	✓		Hy-OH	B+L			8"		Made Springs
2 DO-56	✓								
3 DO-57	✓								
4 DO-58	✓								
5 DO-59	✓								
6 DO-60	✓								
7 DO-61	✓								
8 DO-62	✓								
9 DO-63	✓		↓	↓			↓		
10									
11									
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23									
24									
25									

RADIOGRAPHER: LARRY Chapman HELPER:

INSPECTOR: John H. Phipps

TOTAL WELDS 8 TOTAL HOURS 8

MILES: START END 100 miles at

CONTRACTOR: B+L LOCATION: Cannonburg Ky

CODE: API 1104

DATE 1-26-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT REJECT		SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-64	✓	✓	HY-ON	B+L	—	8			
2 DO-65	✓	✓							made Springs
3 DO-66	✓	✓							
4 DO-67	✓	✓							next to Meadow Lane
5 DO-68	✓	✓							
6 DO-69	✓	✓							188 Wall
7 DO-70	✓	✓							
8									
9									
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18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: LARRY Chapman HELPER:

INSPECTOR: *John R. Vign...*

TOTAL WELDS 7 TOTAL HOURS 8

MILES: START END 100 miles Rt.

CONTRACTOR: B+L LOCATION: Cannonburg Ky

CODE: API 1104

DATE 1-27-94 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-71	✓	Hy-ON	B+L		—	8"		
2 DO-72	✓				—			MEADOW LANE
3 DO-73	✓				—			
4 DO-74	✓				—			188 wall
5 DO-75	✓				—			
6 DO-76	✓				—			
7 DO-77	✓				—			
8 DO-78	✓				—			
9								
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23								
24								
25								

RADIOGRAPHER: *David Chapman* HELPER:

INSPECTOR: *John P. Ray*

TOTAL WELDS TOTAL HOURS 6

MILES: START END 100 miles (ET)

CONTRACTOR: BHL LOCATION: Cannon Run

CODE: APS 1104

DATE 2-1-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



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PHONE: (304) 582-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDER'S STENCIL	SIZE	WELD CLASS	REMARKS
1 D0-79	✓	Ky-04	B+L			84		188 wall
2 D0-80	✓							
3 D0-81	✓							MEADOW LANE
4 D0-82	✓							
5 D0-83	✓							
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

RADIOGRAPHER: *Sam Chapman* HELPER:

INSPECTOR: *Franklin J. Vign*

TOTAL WELDS *5* TOTAL HOURS *5*

MILES: START END *100 miles Rt*

CONTRACTOR: *B+L* LOCATION: *Cannonburg Ky*

CODE: *ADP 1104*

DATE *2-2-95* PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

- B.T. BURN THRU
- O.P. OVER PENETRATION
- L.P. LACK OF PENETRATION
- N.F. NON FUSION
- P.H. PIN HOLE
- I.P. INSUFFICIENT PURGE
- C. CRACK
- P. POROSITY
- L.C. LOW CAP
- H.B. HOLLOW BEAD
- C.B. CONCAVE BEAD
- S.I. SLAG INCLUSIONS
- I.U. INTERNAL UNDERCUT
- E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-8835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DC-84	✓		84-04	BH		—	8"		Aluminum Lane
2 DC-85	✓								188 weld
3 DC-86	✓								
4 DC-87	✓								
5 DC-88									
6 DC-89									
7 DC-90									
8 DC-91									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: *John Chapp* HELPER:

INSPECTOR: *James D. Dyer*

TOTAL WELDS 3 TOTAL HOURS 5

MILES: START END 100 miles RT

CONTRACTOR: LOCATION: *Common Gas by*

CODE: *API 1164*

DATE *2-3-75* PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT





# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
100-92	✓	Ry. OH	B+L					180 Lx11 medium beam
200-93	✓							
300-94	✓							
400-95	✓							
500-96	✓							
600-97	✓							
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

RADIOGRAPHER: *James Chapman* HELPER:

INSPECTOR: *James Chapman*

TOTAL WELDS 6 TOTAL HOURS 6

MILES: START END 100 miles Rt

CONTRACTOR: B+L LOCATION: *Canmamburky*

CODE: API 1104

DATE 2-6-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDER'S STENCIL	SIZE	WELD CLASS	REMARKS
1 10-98	✓		By PH	B+L					100 wall
2 10-99	✓								
3 10-100	✓								100 wall
4 10-101	✓								
5 10-102	✓								
6 10-103	✓								
7 10-104	✓								
8 10-105	✓								
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: *James Chan* HELPER:

INSPECTOR: *James Chan*

TOTAL WELDS 8 TOTAL HOURS 6

MILES: START END 100 miles of

CONTRACTOR: *BH* LOCATION: *Cannonsburg*

CODE: *AP-1*

*1104*

DATE *2-7-95* PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
B.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 20106	✓		✓	B+L					Madon's Line
2 20107	✓								
3 20108	✓								
4 20109	✓								
5 20110	✓								
6 20111	✓								
7 20112	✓								
8 20113	✓								
9 20114									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: *Larry Chapman* HELPER:

INSPECTOR: *Robert R. Vaz*

TOTAL WELDS *8* TOTAL HOURS *6*

MILES: START END

CONTRACTOR: *B+L* LOCATION: *Cannon Run*

CODE: *API*

DATE *1-9-95*

PAGE *1* OF *1*

### RADIOGRAPHIC TERMS:

- B.T. BURN THRU
- O.P. OVER PENETRATION
- L.P. LACK OF PENETRATION
- N.F. NON FUSION
- P.H. PIN HOLE
- I.P. INSUFFICIENT PURGE
- C. CRACK
- P. POROSITY
- L.C. LOW CAP
- H.B. HOLLOW BEAD
- C.B. CONCAVE BEAD
- S.I. SLAG INCLUSIONS
- I.U. INTERNAL UNDERCUT
- E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
10-114	✓		By CH	BH		—	8"		Meadow Lane
10-115	✓								Next to Road Crossing
10-116	✓								
10-117	✓								
10-118	✓								
10-119	✓		CUT OUT	LP					- Meadow Road Crossing - Filling
10-120	✓		CUT OUT	LP					MEADOW LANE - Filling
8									
9									
10									
11									
12									
13									
14									
15									
16									
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18									
19									
20									
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22									
23									
24									
25									

RADIOGRAPHER: <i>Jimmy Chapman</i>	HELPER:
INSPECTOR: <i>John D. King</i>	
TOTAL WELDS: 71	TOTAL HOURS: 7
MILES: START	END 100 miles BH
CONTRACTOR: BH	LOCATION: Cannonsburg Ky
CODE: API	
DATE: 2-10-95	PAGE 1 OF 1

RADIOGRAPHIC TERMS:	
B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-121		✓	Ky-H	B+L	Cut Out		8"		Extinguisher Road crossing
2 DO-122		✓			Cut Out				Extinguisher
3 DO-123	✓								
4									
5									
6 B-2		✓							Buyer Hill X-ing - Extinguisher
7									
8									
9									
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24									
25									

RADIOGRAPHER: Larry Chapin HELPER:

INSPECTOR: [Signature]

TOTAL WELDS 4 TOTAL HOURS 8

MILES: START END 100 miles of

CONTRACTOR: BHL LOCATION: Cannonsburg

CODE: API 1104

DATE 2-13-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
I.U. INTERNAL UNDERCUT  
E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 582-8835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDER'S STENCIL	SIZE	WELD CLASS	REMARKS
100-124		✓	K40H	B+L	LPCUT OFF				transverse - Straight Pipe Road Crossing Replaces DO- 101 & DO-122
200-125	✓								
300-126	✓								
400-127	✓								
500-128	✓								
6									
7									
8									
9									
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24									
25									

RADIOGRAPHER: *Larry [Signature]* HELPER:

INSPECTOR: *[Signature]*

TOTAL WELDS 5 TOTAL HOURS 6

MILES: START END 100 miles

CONTRACTOR: B+L LOCATION: Cannonsburg Ky

CODE: APF 1104

DATE 2-14-95 PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T.	BURN THRU
O.P.	OVER PENETRATION
L.P.	LACK OF PENETRATION
N.F.	NON FUSION
P.H.	PIN HOLE
I.P.	INSUFFICIENT PURGE
C.	CRACK
P.	POROSITY
L.C.	LOW CAP
H.B.	HOLLOW BEAD
C.B.	CONCAVE BEAD
S.I.	SLAG INCLUSIONS
I.U.	INTERNAL UNDERCUT
E.U.	EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
120-129	✓		Ky-a 4	B+L			8"		
200-130	✓								Road crossing
300-131	✓								meadow base
400-132	✓								At Newborn bridge
5									
6									129, 130 Replace
7									XR DO 124
8									
9									
10									131 Replace 1/14
11									132 Replace 120
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

RADIOGRAPHER: *Jerry Chan* HELPER:

INSPECTOR: *Robert W. Wiggins*

TOTAL WELDS 4

TOTAL HOURS 8

MILES: START

END

100 miles at

CONTRACTOR: *BTL*

LOCATION:

*Cammerburg*

CODE: *API 1104*

DATE

*2-16-95*

PAGE

( OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
S.I. SLAG INCLUSIONS  
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25528  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDERS STENCIL	SIZE	WELD CLASS	REMARKS
1 BG-R1	✓		KY-04	B&L			3"	2-C	
2 DO-133	✓		1	1			1		mean width
3									
4									
5									
6									
7									
8									
9									
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22									
23									
24									
25									

RADIOGRAPHER: *Kenny Blythe* HELPER:

INSPECTOR: *John L. Vignone*

TOTAL WELDS 2 TOTAL HOURS 5 1/2

MILES: START END 100 RT

CONTRACTOR: *B&L KY-04* LOCATION: *CANNONBURG, KY*

CODE: *API-1104*

DATE *2-17-95* PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
C.B. CONCAVE BEAD  
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT





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P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDER'S STENCIL SIZE	WELD CLASS	REMARKS
1 DO-134	✓	ky-017	B+2		SP		MEAD SPRINGER
2 DO-135	✓						
3							
4							
5							
6							
7							DO 134 - Replaces DO 4
8							DO 135 - Replaces DO 42
9							
10							
11							
12							
13							
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16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

RADIOGRAPHER: *Freeman Davis* HELPER:

INSPECTOR: *John B. Ryan*

TOTAL WELDS: 2 TOTAL HOURS

MILES: START END

CONTRACTOR: *ky-017* LOCATION: *MEAD SPRINGER*

CODE: *API-1104*

DATE: *2-20-95* PAGE 1 OF 1

### RADIOGRAPHIC TERMS:

B.T. BURN THRU  
O.P. OVER PENETRATION  
L.P. LACK OF PENETRATION  
N.F. NON FUSION  
P.H. PIN HOLE  
I.P. INSUFFICIENT PURGE  
C. CRACK  
P. POROSITY  
L.C. LOW CAP  
H.B. HOLLOW BEAD  
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GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT



# Energy Management & Services Company

Technical Expertise Serving The Oil & Gas Industry

LL

RECEIVED

March 9, 1995

MAR 13 1995

DIVISION OF UTILITY  
ENGINEERING & SERVICES

Mr. Scott Smith, P.E.  
Kentucky Public Service Commission  
P.O. Box 615  
730 Schenkel Lane  
Frankfort, KY 40601

Re: Kentucky-Ohio Gas Acquisition  
Response To Questions On  
X-Ray Reports

Dear Scott:

I understand Mr. Larry Amburgey had a question concerning the X-Ray Report dated February 3, 1995, due to the fact four of the x-rays (DO-88,89,90, and 91) were not marked as to whether they were accepted or rejected.

I have checked with Mr. Randy Virgin, the KOG inspector on the "dig-out" activity. According to his notes, the four x-rays in question were all acceptable but the technician had failed to mark their status.

I hope this answers your questions concerning this issue.

Sincerely,

ENERGY MANAGEMENT & SERVICES CO.

T.D. HONN, P.E., L.S.  
PRESIDENT

enclosures

cc: Mr. Tim Sutherland  
Mr. Jeff Brown  
Mr. Jack Hughes  
Mr. Glenn Templeton

kog/107.



# NONDESTRUCTIVE INSPECTION SERVICE, INC.

P. O. BOX 220  
HURRICANE, WV 25526  
PHONE: (304) 562-6835 or 727-3501

## RADIOGRAPHIC INSPECTION REPORT

X-RAY NO.	ACCEPT	REJECT	SKETCH NUMBER	PROJECT NUMBER	REASON FOR REJECTION	WELDER'S STENCIL	SIZE	WELD CLASS	REMARKS
1 DO-84	✓		Hy-24	BTH			5"		plasma arc
2 DO-85	✓								188 weld
3 DO-86	✓								
4 DO-87	✓								
5 DO-88	X								These were not originally marked as rejected - checked w/ R. Virgin's notes - therefore were all OK -
6 DO-89	X								
7 DO-90	X								
8 DO-91	X								
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
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22									
23									
24									
25									

RADIOGRAPHER: <i>John Chaga</i>	HELPER:	RADIOGRAPHIC TERMS:
INSPECTOR: <i>Spencer R. Virgin</i>		B.T. BURN THRU
TOTAL WELDS 3	TOTAL HOURS 5	O.P. OVER PENETRATION
MILES: START	END 100 miles RT	L.P. LACK OF PENETRATION
CONTRACTOR:	LOCATION: <i>Common Bay</i>	N.F. NON FUSION
CODE: <i>API 1104</i>		P.H. PIN HOLE
DATE <i>2-3-75</i>	PAGE 1 OF 1	I.P. INSUFFICIENT PURGE
		C. CRACK
		P. POROSITY
		L.C. LOW CAP
		H.B. HOLLOW BEAD
		C.B. CONCAVE BEAD
		S.I. SLAG INCLUSIONS
		I.U. INTERNAL UNDERCUT
		E.U. EXTERNAL UNDERCUT

GAMMA RAY — ULTRASONIC — MAGNETIC PARTICLE —  
INSPECTION & STRAIGHTENING OF OIL FIELD EQUIPMENT